Powerful Pure Sonic Performance

VORTEX Series

Precision, pure natural sonic performance and total power define the Vortex series. The difference; total care about audio design and integrity.

Pure Sonic Performance

Total precision and transparency is the trademark of the Vortex series, thanks to its careful design eliminating sound-deteriorating drawbacks right from the start. This is also evident in the Vortex Series exceptional low distortion values and excellent signal to noise ratio.

Flexible in Power & Application

The Vortex amplifier can easily switch between applications and speaker setups due to its unique power regime. This consists of an extensive power reservoir, stability down to 1 Ohm loads and the ability to run in Stereo, Bridge Mono and Parallel Mono operation modes.

Designed for Touring & More

With a weight of just 12,4 kg and designed for the demands of touring professionals the 2 RU chassis ensures exceptional reliability. All dynamic protection circuits are the result of the philosophy, "Audio-at-all times".

Remote Control Included

The Vortex Series remote control system allows complete application freedom, from FOH to control room centre, the ability to control and monitor usage comes as a standard feature.

Optional DSP & Audio Network

All Vortex amplifiers can be upgraded with CAMCO's advanced controller-modules, converting the Vortex into a complete loudspeaker management system. Network solutions via EtherSound or CobraNet offer stand alone Network option modules or combined DSP and Network modules.

6 Years Warranty

CAMCO amplifiers renowned reliability is backed up by 6 years warranty from date of first purchase.

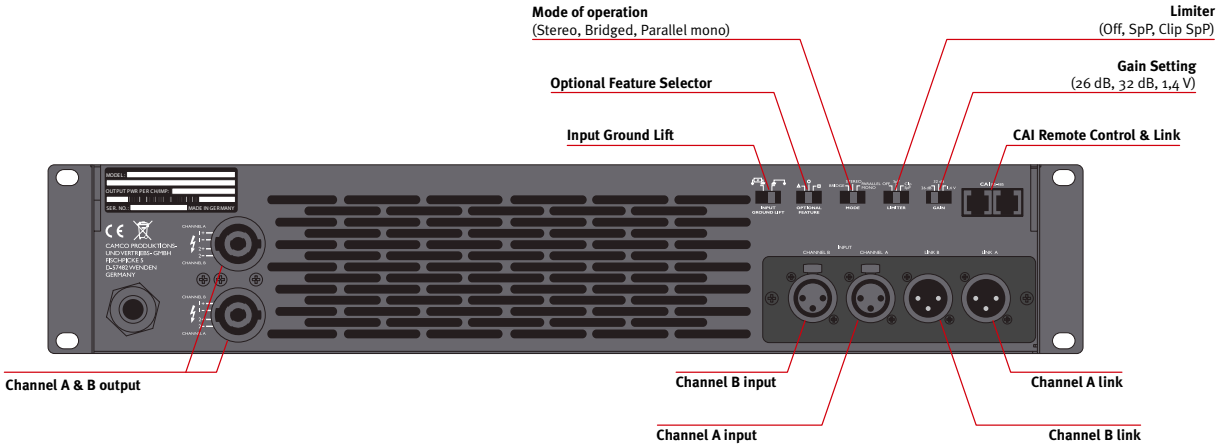
The entire signal path in the Vortex amp is microprocessor controlled, even the gain setting is digital controlled. This ensures minimal interference in the signal path resulting in an unsurpassed transparent audio performance.

The built-in CAMCO Audio Interface (CAI) on the Vortex series allows real time and dynamic monitoring and control of the amplifier. As the Vortex amp is microprocessor controlled it can remotely be set in true standby mode, where the main power supply is shut down but the signal and control section is still running.

The ability to run in Parallel Mono is a unique CAMCO feature, which extends the amplifier's ability to run at extremely low impedances.

"Camco's new Vortex Series delivers highest performance in a compact and low-weight enclosure, which can ultimately be seen from the impressive performance/weight ratio of 453 watts/kg. However, what makes this result really exceptional are the excellent distortion values, the very good S/N ratio and the variety of sophisticated protections."

- Vortex test by Production Partner Magazine



Specifications:

		Vortex 2.6	Vortex 4	Vortex 6	Vortex *200V*	Vortex 3 Quadro
Stereo *1)*	16 Ω	250 W	500 W	730 W	1040 W	270 W
	8 Ω	480 W	930 W	1350 W	1880 W	490 W
	4 Ω	860 W	1570 W	2300 W	3100 W	800 W
	2 Ω	1400 W	2300 W	3300 W	2600 W *2)*	720 W *2)*
	Peak	1540 W	2490 W	4090 W	4050 W	1070 W
Mono	16 Ω *3)*	960 W	1860 W	2700 W	3760 W	980 W
	8 Ω *3)*	1720 W	3140 W	4600 W	6200 W	1600 W
	4 Ω *3)*	2800 W	4600 W	6600 W	5200 W *2)*	1480 W *2)*
	2 Ω *4)*	1720 W	3140 W	4600 W	6200 W	1600 W
	1 Ω *4)*	2800 W	4600 W	6600 W	5200 W *2)*	1480 W *2)*
	Peak *4)*	3080 W	4980 W	8180 W	8100 W	2140 W

Output Circuitry	bipolar, Class H
Frequency Response 8 Ω load, 1 dB below rated power	20 Hz - 20 kHz ± 0,15 dB
Input Impedance	40 kΩ balanced
Input Gain	selectable: 26 dB, 32 dB, or 1,4 V input sensitivity
Protection Circuits	inrush-current limitation, protection circuits against power on/off transients, temperature monitoring of transformers and heat-sinks, output DC protection, power transistor control, temperature dependent SOA protection, intelligent mains fuse protection
Limiter	3 step switchable peak-limiter
Fan	2 temperature dependent speed-controlled axial fans
Ground-Lift	input ground-lift switch on back panel
Indicators	LED's for ON, SIGNAL, CLIP, DC, High Temp, Output Current
Input Connectors	3-pin XLR, male and female per channel, pin 2 = in phase
Output Connectors *5)*	One 4-pole SPEAKON connector for each output channel (bi-amping possible)
Modes Of Operation	STEREO, BRIDGE MONO and PARALLEL-MONO
Options	Extended User Interface / E.U.I. — modules for any kind of EQ
Signal To Noise-Ratio 20 Hz - 20 kHz, 8 Ω load	> 107 dB (unweighted) > 110 dB (A-weighted)
THD+N (typical) 20 Hz - 20 kHz, 8 Ω load, 3 dB below rated power	< 0,01 %
SMPTE (typical) 20 Hz - 20 kHz, 8 Ω load, 3 dB below rated power	< 0,01 %
Damping Factor 8 Ω load, 1 kHz and below	> 400
Net Weight	12,4 kg / 27,3 lbs (10,7 kg / 23,6 lbs for Vortex 3 Quadro)
Shipping Weight	15,0 kg / 33,1 lbs (13,5 kg / 29,8 lbs for Vortex 3 Quadro)
Dimensions (WxHxD)	483 x 88,9 x 436 mm / 19 x 3,5 x 17,2 inches (19", 2U)
Shipping Dim. (WxHxD)	540 x 135 x 615 mm (0,045 m³) / 21,3 x 5,3 x 24,2 inches

1) All channels driven, 1 kHz, 1% THD @ 230 VAC 2) Peak Power, component tolerance dependent 3) Mono bridged 4) Parallel mono 5) different at Vortex 3 Quadro
Subject to technical alterations without prior notice.

TECTON Series

Tecton uses CAMCO's advanced technologies to deliver a range of amplifiers, where high audio quality, power and reliability is of highest priority.

Sonic Integrity

Based on the technology of the renowned Vortex series, the Tecton series offers excellent sonic integrity, with some of the markets best audio specifications delivering low distortion and high dynamic range.

Load & Cost Optimized

The Tecton series is optimized for either high or low impedance loads. This unique concept allows for complete application focus reducing unwanted feature and cost. Where specific tools are required for specific use Tecton delivers it all - even in the most power demanding venues.

Low Weight – High Reliability

With a weight of just 9,4 kg, the Tecton series is ideal for PA and Monitor installation in all market sections. CAMCO's rugged design and high reliability make the Tecton series a cost effective option for the discerning user.

Optional Remote Control, DSP & Network

All Tecton amplifiers can be upgraded with CAMCO's advanced controller-modules. These offer the possibility for loudspeaker management, remote control and digital audio network in any desired combination. The possibility for upgrades makes any CAMCO amplifier a future-proof investment.

6 Years Warranty

CAMCO amplifiers renowned reliability is backed up by 6 years warranty from date of first purchase.

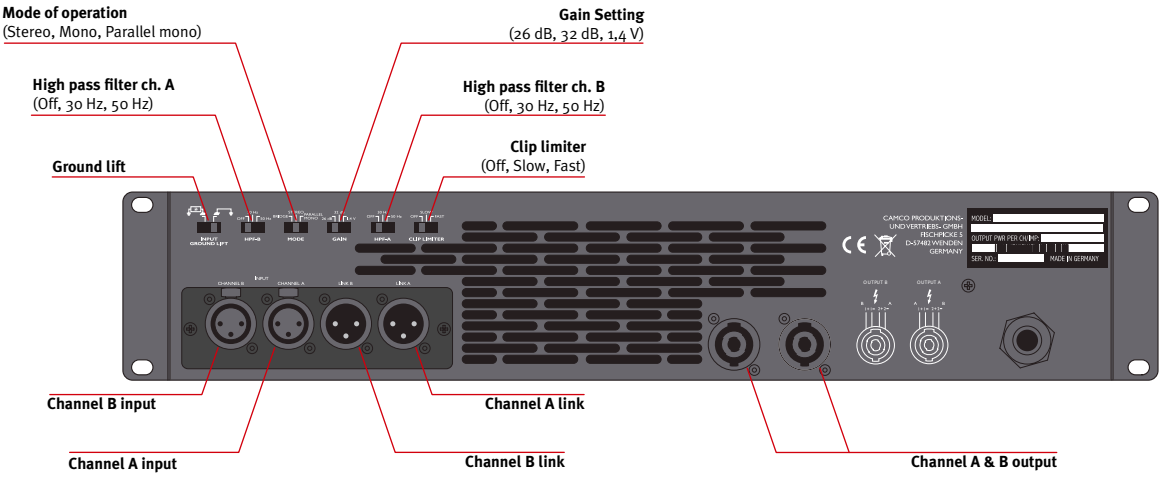
The 3 position clip limiter provides accurate protection while maintaining the maximum power values possible. If the amp is overdriven, the clip detection triggers the Attack Release Circuit (ARC). The fine structure between fast and slow modes assures sonic integrity and maximum protection.

The signal section is designed as an Extended User Interface (EUI) module. This EUI can be replaced with upgrades such as integrated controller-DSP, remote control & digital audio network. This concept ensures CAMCO amplifier as a future proof investment that can take advantage of current as well as future available upgrades.

The whole PCB-board of the Tecton amplifier is hanging upside down inside the chassis. Dust or other particles that would normally gather up over time will simply fall off ensuring long-term reliable performance, even in heavily particle polluted environments.

"The features are very good, especially regarding the very complete and well designed protection circuits. Special attention is deserved by the limiters, which are perfectly tuned to everyday use with clip- and RMS-character and not only prevent clipping of the power amp, but also offer solid protection for the connected speakers. The pricing of the Tecton's is pleasingly moderate and anyhow you could never go wrong with a Camco poweramp as an investment and regarding resale value."

- Tecton test by Production Partner Magazine



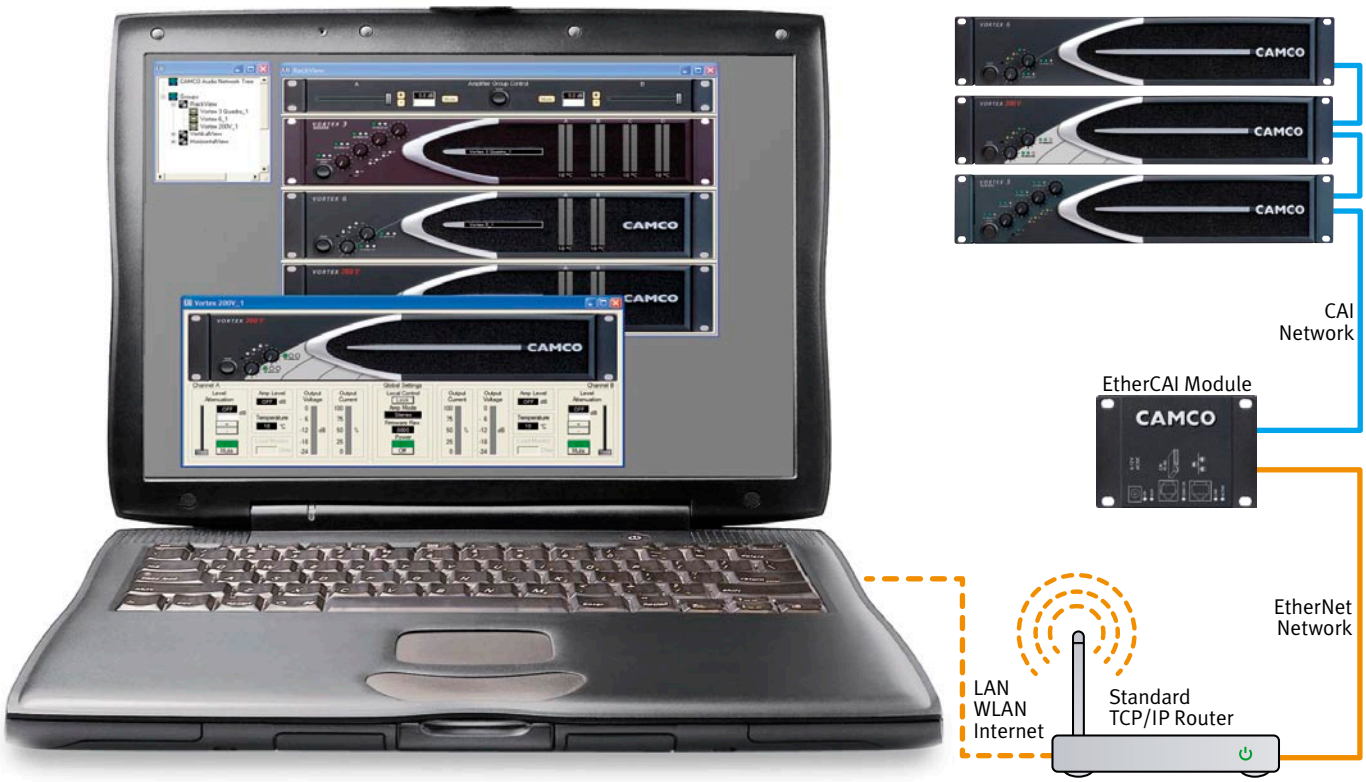
Specifications:

		Tecton 14.2	Tecton 22.2	Tecton 28.2	Tecton 24.4	Tecton 32.4	Tecton 38.4
Stereo [1]	8 Ω	226 W	355 W	517 W	698 W	918 W	1136 W
	4 Ω	420 W	660 W	920 W	1216 W	1595 W	1900 W
	2 Ω	730 W	1140 W	1420 W	1600 W [2]	1600 W [2]	1500 W [2]
Mono	16 Ω [3]	452 W	710 W	1034 W	1396 W	1836 W	2272 W
	8 Ω [3]	840 W	1320 W	1840 W	2432 W	3190 W	3800 W
	4 Ω [3]	1460 W	2280 W	2840 W	3200 W [2]	3200 W [2]	3000 W [2]
	2 Ω [4]	840 W	1320 W	1840 W	2432 W	3190 W	3800 W
	1 Ω [4]	1460 W	2280 W	2840 W	3200 W [2]	3200 W [2]	3000 W [2]

Output Circuitry	AB	2-Step Class H
Frequency Response	20 Hz - 20 kHz, ± 0,2 dB / 8 Hz-50 kHz, +0, -3 dB	
Input Impedance	14 kΩ balanced	
Input Gain	selectable: 26 dB, 32 dB, or 1,4 V input sensitivity	
Protection Circuits	incrush-current limitation, protection circuits against power- on/off transients, temperature monitoring, output DC protection, temperature dependent power transistor SOA protection, intelligent mains fuse protection	
Limiter	3 step switchable peak-limiter	
Fan	Temperature dependent speed-controlled axial fan	
Ground-Lift	input ground-lift switch on back panel	
Indicators	LED's for Mode, Signal, Clip, Output Current, Remote Control	
Input Connectors	3-pin XLR, male and female per channel, pin 2 = in phase	
Output Connectors	One 4-pole SPEAKON connector for each output channel (bi-amping possible)	
Modes Of Operation	STEREO, BRIDGE MONO and PARALLEL-MONO	
Options	Extended User Interface / E.U.I. — modules for i.e. Remote Control, Audio Network, Controller-DSP	
Signal To Noise-Ratio 20 Hz - 20 kHz, 8 Ω load	> 107 dB (unweighted) > 110 dB (A-weighted)	
THD+N (typical) 20 Hz-20 kHz, 8 Ω load 10 dB below rated power	< 0,01 %	
SMPTE (typical) 20 Hz-20 kHz, 8 Ω load 10 dB below rated power	< 0,01 %	
Damping Factor	> 400	
Net Weight	9,4 kg / 20,7 lbs	
Shipping Weight	11 kg / 24,3 lbs	
Dimensions (W x H x D)	483 x 88,9 x 330,7 mm / 19 x 3,5 x 13,0 inches (19", 2U)	
Shipping Dim. (W x H x D)	540 x 135 x 540 mm (0,04 m^3) / 21,3 x 5,3 x 21,3 inches	

1) All channels driven, 1 kHz, 1% THD @ 230 VAC 2) Peak Power, component tolerance dependent 3) Mono bridged 4) Parallel mono
All specification subject to change without notice

Remote / Control



CAMCO Vortex series amplifiers are supplied with a remote control facility as standard (Camco Amplifier Interface - CAI). The Tecton series can be upgraded for remote control via the use of the controller-module or a combined controller / network-module.

Cost Efficient Network

The CAI interface is a cost efficient solution, which via a RJ11 connector handles all the amplifiers settings and status readings. Up to 32 amplifiers can be daisy chained together into a CAI network (blue lines on the illustration above).

Ethernet & TCP/IP Compatible

The EtherCAI module is a network-bridge between the CAI network (blue lines) and a standard TCP/IP & Ethernet network (orange lines) which together makes an EtherCAI network (blue + orange lines). Thus remote control is possible through LAN, WLAN and the Internet.

Remote Control of Infinite Amplifiers

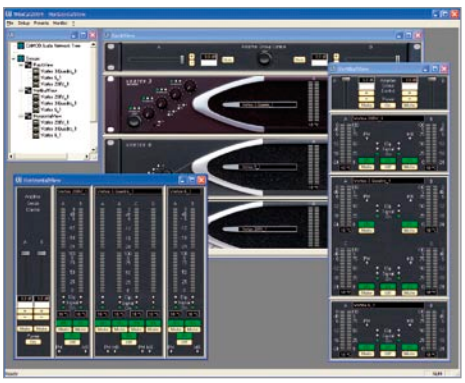
Several EtherCAI modules can be connected to the same standard Ethernet router. Thus there is no upper limit to the number of amplifiers which can be remote controlled by a PC over an EtherCAI network.

User-friendly Software

The remote control software provides a user-friendly and intuitive graphical user interface, which enables remote control of all amplifiers connected to the EtherCAI network. All registered users of CAMCO amplifiers can receive CAMCO's remote control software free of charge. Please contact your CAMCO dealer for further information.

Control of All Parameters

The CISUS software provides access to all the amplifiers front plate read outs, amongst others: Signal. Clip and Protect. Additionally the amplifiers mute function is also accessible. Furthermore CISUS offers peak meter readouts of the output stages voltage and current as well as dynamic readout of the amplifiers temperature.



The CISUS remote control software offers different views of amplifiers in a group, for easy overview and control. Illustrated here vertical, horizontal and rack-view of the same amplifier group.

Amplifier groups and views are easy to define by drag'n'drop functionality in the network tree (upper left corner).

Controller / Modules

CAMCO's new controller-modules allows the upgrade of a CAMCO amplifier into a Universal Controller Amplifier (UCA), with the option for advanced audio network and remote control.

Loudspeaker Management System

The controller-module offers a complete loudspeaker management system. Per channel it offers 30 fully parametric EQ's, delays, IIR-filters, X-over up to 10th order and 2 independent limiters.

Audio Network, Your choice

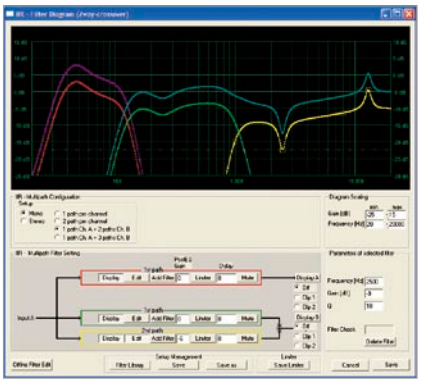
The controller-module is available in three input formats. The choice is yours. Either, analog, EtherSound or CobraNet. Total compatibility with today's standards within digital audio networks.

Remote Control as Standard

As standard the controller-module offers access to the remote control of the amplifier. For controller-modules with audio network input, remote control can be achieved via this network, thus avoiding two cable lines to the amplifiers.

Controller Software

Access, configuration and control of the controller-modules are achieved via the controller software, which also functions as the remote control software. Software is free for all registered users; please see your local CAMCO dealer for further information.



The powerful controller DSP offers up to 4 paths in a multi-path routing structure. This allows emulation of passive X-over filters, thus making it possible to control EQ, limiter and delay settings for individual speaker drivers in a passive X-over system.

The advanced thermo and peak limiter functions can be combined with the amplifier's limiter, thus always maximising power output of the entire system with optimal protection.

Linear Frequency and Phase Response

A unique feature is the possibility to use advanced FIR-filter settings by downloading speaker parameters from an accredited measurement system. This makes it possible to achieve a linear frequency and phase response from any loudspeaker or loudspeaker system. Please contact CAMCO for further information.

Specifications:	UCA-X-AN	UCA-X-ES	UCA-X-CN*
Audio Network	-	EtherSound	CobraNet
Input Connector	2 x 3 pin XLR	RJ45 EtherCon	RJ45 connector
No. of Channels	2	2 of 64	2 of 64
Remote Control	Via CAI port	Via audio network	Via audio network
Software	CISUS	CISUS	CISUS
AD Converter	127 dB dynamic range	-	-
Max. input level	22 dBu	-	-
Sample Rate	48 kHz	48 kHz	48 kHz
Analogue outputs, internal			
Converter:	24 Bit with Delta/Sigma converters		
Output voltage:	1,4 V RMS, optimised for Vortex and Tecton amps		
Dynamic range:	114 dB typical, optimised for Vortex and Tecton amps		
Latency:	1 ms from input to analogue output		
Routing & gain:	Routing of all inputs. Gain adjustment on input and output of UCA Module		
Limiters per channel:	Independent limiters, adjustable in threshold and release time.		
Delay:	Up to 1,8 sec 21 usec increments		
Filters & EQ per channel:	Graphic EQ-settings. Drag-and-drop control of filter curves. 30 fully parametric EQs, adjustable in frequency, amplitude, quality and characteristic. X-over up to 10th order. shelving filters		
Speaker protection:	Foresight limiter with "controlled overshoot" for utilisation of the impulse reserves of the amplifier with regards to the loudspeaker's thermal equivalent circuit diagram		
FIR-filters:	Possibility for high-precision FIR-filtering via the accredited measurement systems. Optimisation to a designated transfer function.		

* In preparation

References

From Around the Globe

Touring & Live

Pavarotti and Sandy Lam, Hong Kong

"The White Stripes", Australia/Asian Tour

UK, Bob Dylan, Finsbury Park Fleadh

Oasis, stadium shows in the UK

Theatre & Installation

Holiday On Ice, Germany

Geneva Stadium, Switzerland

Convention Centre of Bordeaux, France

"Marilyn Monroe" musical, Munich Germany

Special Events & AV

MTV Awards, Singapore Indoor Stadium, Singapore

Four Hills Tournament Austria

Herbalife's 25th anniversary gala, featuring Sir Elton John, USA

Ringo Starr, Liverpools Celebration as European City of Culture, UK.

Houses of Worship

Oregon Church, USA

Lighthouse Evangelism Church, Singapore

Dallas High Point Church, USA

St. Pius Church, Switzerland

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